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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,306	02/13/2002	Alexander Leonidovich Berestov	03650.001013	6316

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EXAMINER

FILIPCZYK, MARCIN R

ART UNIT	PAPER NUMBER
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2163

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,306

Applicant(s)

BERESTOV, ALEXANDER
LEONIDOVICH

Examiner

Marc R. Filipczyk

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Action is responsive to Applicant's RCE request and amendment filed on May 19, 2006.

To expedite the process of examination Examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. amendments, 35 U.S.C. 112, objections and the like) set forth by the Examiner that Applicants provide and link to the most specific page and line numbers of the disclosure where the best support is found (see 35 U.S.C. 132).

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 19, 2006 has been entered.

Claims 1-3, 5-10 and 12-17 are pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 5-10 and 12-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth whether the invention accomplishes a practical application and whether it generates a useful, concrete and tangible result.

The guidelines explain that a practical application of a 35 U.S.C. 101 judicial exception is claimed if the claimed invention physically transforms an article or physical object to a different state or thing, or if the claimed invention otherwise produces a useful, concrete, and tangible result.

In the present case, independent claims 1, 15 and 16 do not involve transformation of article or physical object to a different state or thing, they merely recite a section for storing data. Further, independent claims 1, 15 and 16 do not produce a useful, concrete, and tangible result, but merely recite a section for storing data. State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02.

Claim 1 taken as a whole is directed to an abstract idea, i.e., to only its description or expression, comprises non-functional descriptive material per se, does not comprise a practical application as explained above hence is nonstatutory.

Claims 15 and 16 taken as a whole are directed to a mere method, i.e., to only its description or expression, do not comprise a practical application as explained above hence are nonstatutory.

Since the claimed invention, as a whole, does not comprise a practical application as explained above, claims 2, 3, 5-10, 12-14 and 17 which depend from claims 1 and 16 respectively, are deemed to be directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5-10 and 12-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The subject matter of "storing medical image topography" was not described in the specification in such a way as to enable one skilled in the relevant art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-10 and 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 15 and 16, the segment "the topography direction" is indefinite. It is not clear what a topography direction is. Further, the segment, "medical image topography" is indefinite. It is not clear what medical image topography is or how it is obtained, and is not taught in the detailed description.

Regarding claims 2, 3, 5-10, 12-14 and 17 depend from claims 1 and 16 respectively, and are therefore rejected on the same basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-10 and 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al (U.S. Patent No 6,047,227).

Regarding claims 1, 15 and 16, Henderson discloses a data storage format for storing topography data associated with an object comprising (fig. 1):

a first section for storing medical image topography data in relation to a reference entity with respect to which the medical image topography data is determined (fig. 1, item 104, and col. 3, lines 27-29: *desired site*);

a second section for storing information concerning the reference entity (fig. 1, item 104, and col. 3, lines 27-29: *actual site*);

a third section for storing information concerning the topography direction along which the topography data is measured or calculated (fig. 1, item 102, and col. 3, lines 29-36: *differencing algorithm*), and Henderson further discloses an image is fused to the medical image topography data (figs. 5A and 5B, col. 7, lines 20-23: site contours are overlaid).

(Note: medical image topography is indefinite and is not taught in the detailed disclosure, thus to expedite the process of examination is interpreted as a topography data)

Regarding claims 2 and 3, Henderson discloses the topography and reference entities are in N-dimensional space (figs. 5A and 5B)

(Note: site models are 3 dimensional [3-D] geographies)

Regarding claims 5-7, Henderson discloses the reference entity is described as a function, point or line in N-dimensional space (figs. 5A and B; function)

(Note: functions can be simplified to a line and a point by reducing their dimensions, i.e., xyz plane to xy coordinate, a point)

Regarding claims 8-10, Henderson discloses the reference entity and topographic direction are in Cartesian or non-Cartesian coordinate system and that their coordinates are known (col. 3, lines 17-25).

(Note: GPS and Radar use both Cartesian and non-Cartesian coordinate system to locate/monitor objects/geographies)

Regarding claim 12, Henderson discloses the reference entity and the topography direction are registered with respect to a first coordinate system, the first coordinate system being registered to the global coordinated system (col. 3, lines 17-25 and fig. 3, items 312 and 316).

Regarding claim 13, Henderson discloses a transformation is performed between the first coordinate system and a second coordinate system to which a three dimensional image is registered, the second coordinate system being independent from the first coordinate system and being registered to the global coordinate system (fig. 3, GPS, and col. 3, lines 29-35).

Regarding claims 14 and 17, Henderson discloses a three dimensional image is fused to the topography data (figs. 5A and 5B, col. 7, lines 20-23: site contours are overlaid).

Response to Arguments

Applicant's amendment and arguments filed May 19, 2006 have been fully considered but they are not persuasive. The arguments and responses are listed below.

Applicant argues on page 6 of the 5/19/06 response regarding an indefinite rejection that "direction along which the topography data is measured or calculated" itself defines the nature of the topography direction.

Examiner disagrees. First, Examiner notes that upon reviewing Applicants claims additional rejections were made for non-statutory subject matter.

Regarding Applicants response, it is not clear to one of ordinary skill in the art concerning a topography direction along which the medical image topography data is measured or calculated. The metes and bounds of topography direction are not clear, in addition, the direct meaning of topography direction is not clear. As such, the rejection stands.

Applicant argues on pages 7 and 8 in the 5/19/06 response that, "Henderson does not disclose any data storage format whatsoever.

Examiner disagrees. As noted in the previous office action, Applicant does not claim any particular data storage format, instead has an abstract idea for using three sections for storing some data. Applicant does not comprise a physical medium for storing actual data, in addition, the data may comprise any format type. Further, claim 1 only mentions a data format in the preamble and is not supported or defined by any dependent claims. Every data comprises a default format and Examiner equates Applicant's data format of simply N-dimensions to Henderson's models which also use N-dimensional geographies, i.e., 3-D (please refer to the rejections).

Applicant argues on page 8 of the 5/19/06 response that, 'nothing in Henderson specifies that its "actual site" model is the reference entity with respect to which the "desired" site model is determined.'

Examiner disagrees. The purpose of Henderson system is to bring the actual site geography into conformity with the desired site geography (see abstract). One of ordinary skill in the related art understands that the desired site geography is limited by the actual site geography by a number of factors, related size being one of them. Clearly the actual site is the reference entity for the desired site. That is not to be misunderstood with the notion that other factors such as GPS are used for determining coordinates. Figure 1 further illustrates that once the sites are loaded into a database (104), machine position (100) is used to calculate and measure the sites via an algorithm (102) because the coordinates of both sites are known (fig. 2)

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and a dynamic site model represents the difference between the actual and desired sites and is displayed (fig. 1, and col. 3, lines 30-41).

With respect to all the pending claims 1-3, 5-10 and 12-17, Examiner respectfully traverses Applicant's assertion based on the discussion and rejections cited above.

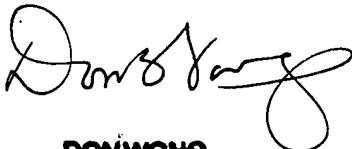
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc R. Filipczyk whose telephone number is (571) 272-4019. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MF
June 12, 2006


DONWONG
SUPERVISORY PATENT EXAMINER